**Biology SGO – STUDY GUIDE**

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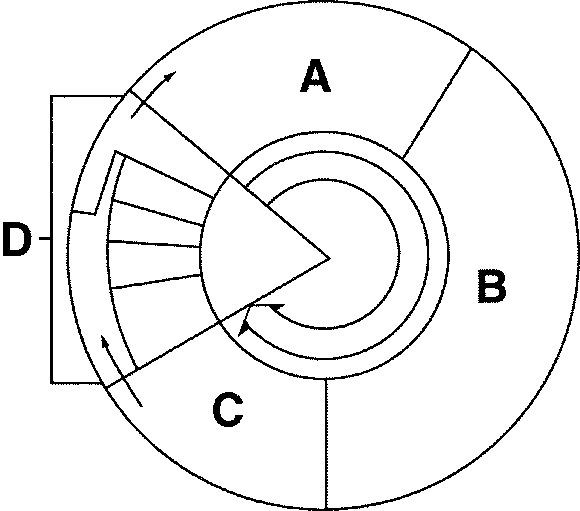
1. The part of the experiment in which all conditions are kept the same (do not vary) are called \_\_\_.

2. The diffusion of water is called \_\_\_\_.

3. The enzyme that breaks the hydrogen bonds in DNA during replication is \_\_\_\_.

4. How many chromosomes are shown in a human diploid cell?

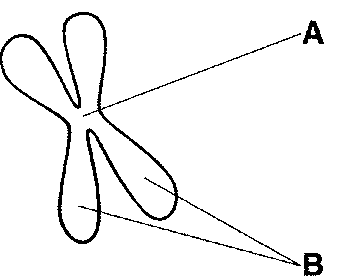
5. The organelle that controls most of the cell processes and contains DNA is the \_\_\_\_.

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**Figure 10–1**

6. Mitosis is represented in Figure 10–1 by the letter \_\_\_\_.

7. The regulation of an organism’s internal environment to maintain conditions suitable for life is the definition of \_\_\_\_.

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8. The structures labeled B in Figure 10-2 are called the \_\_\_.

9. During what phase of mitosis does the nuclear envelope disappear?

10. The three particles that make up an atom are \_\_\_\_, \_\_\_\_ and \_\_\_\_.

11. What is the correct equation for cellular respiration?

12. The base of all food webs on the planet are \_\_\_\_\_.

13. What are the parts of the cell theory?

14. You know you are observing plant cells undergoing mitosis if you observe \_\_\_.

15. Which of the following organic compound is the main source of energy for living things?

16. A group of organisms that can interbreed and produce fertile and viable offspring is called a(n) \_\_\_\_.

17. Painted turtles are cold-blooded animals that often sit on logs and bask in the sun.

Why might they do this?

18. A type of protein that speeds up chemical reactions is/are called \_\_\_.

19. Meiosis results in cells that are referred to as \_\_\_\_\_.

20. Organic compounds that contain DNA and RNA are referred to a \_\_\_\_.

21. What is the most important requirement for all living things?

22. The measure of how acidic or basic something is its \_\_\_\_.

23. Any mistake or change in DNA is a \_\_\_\_\_.

24. The place in an ecosystem where an organism lives is the organism’s \_\_\_.

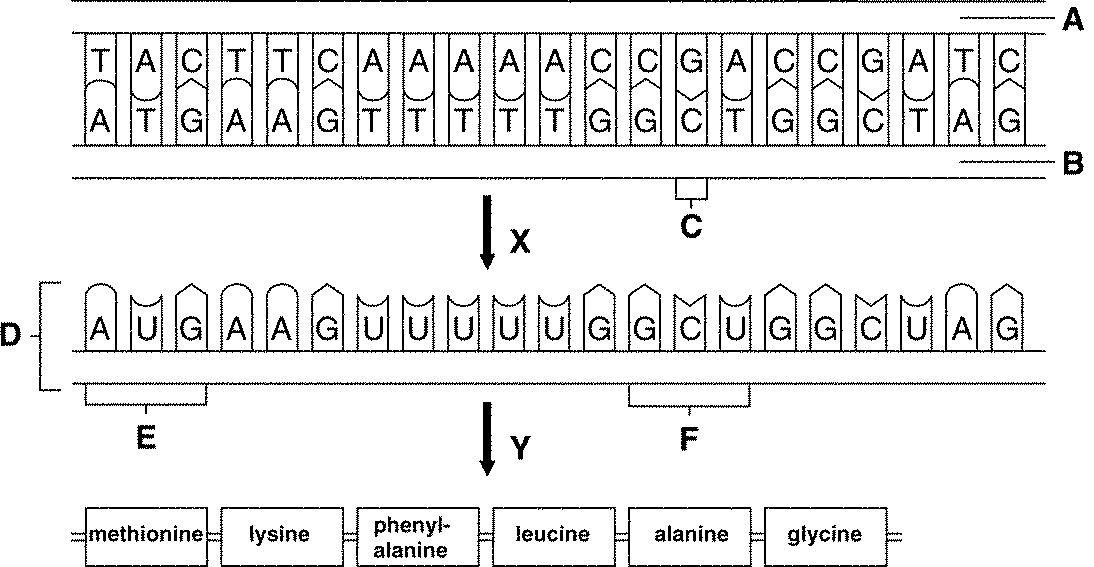
25. The process where the mRNA is “decoded” into protein is called \_\_\_\_.

26. A student is collecting the gas given off from a plant in bright sunlight at a temperature of

27°C. The gas being collected is probably \_\_\_\_\_.

27. Organic compounds that make, replace, and repair cells are \_\_\_\_.

28. \_\_\_\_ is the process where a piece of DNA is copied into mRNA.



**FIGURE 12-4**

29. What process does structure X represent in Figure 12-4?

30. A covalent bond is formed when: